

to a plurality of predetermined positions”.

In reality, Ashkenas is wholly and solely concerned with controlling wing tip stall in airplanes having swept-back wing panels, and teaches absolutely nothing about controlling the positions of “deflectable control surfaces located along the trailing edge” of a wing, which is what the presently claimed invention is wholly and solely concerned with. Thus, Ashkenas and the presently claimed invention have absolutely nothing to do with one another.

More particularly, Ashkenas specifically states that “... it is an object of the present invention to provide a means and method of increasing the stalling angle of the wing tip sections” (col. 2, lines 16-19), and that “... it is another object of the present invention to provide a means and method of automatically opening the normally closed tip slots as a stall is approached, preferably at predetermined values of lift coefficient of the wing tips.” (col. 2, lines 24-29).

The only deflectable control surfaces located along the trailing edge in the aircraft disclosed by Ashkenas are the elevons 4, the split rudders 5, and the large area landing flaps 6. Ashkenas teaches absolutely nothing about how these deflectable control surfaces are controlled, much less a “control surface reconfiguration system/means” that selectively reconfigures the control surfaces to a plurality of predetermined positions ... to optimize the spanwise force distribution across the wing for each of a plurality of different flight conditions, as called for the pending claims of the present application. The Examiner makes a broad assertion that “Ashkenas clearly teaches control surfaces that are selectively reconfigurable to a plurality of predetermined positions” without specifying where in the Ashkenas patent any such teaching can be found.

Applicant has very carefully studied the Ashkenas patent and can find absolutely no

teaching at all regarding how the deflectable control surfaces 4, 5, and 6 are operated and controlled, except the very brief passage below (col. 3, lines 15-21):

Normal control of the airplane is by elevons 4 actuated either simultaneously or independently, and split rudders 5 for producing unilateral drag at the wing tips. Large area landing flaps 6 are positioned between the propeller housings 2 and the crew nacelle 7.

Ashkenas does not even remotely suggest the desirability of predetermining the positions of the control surfaces that optimize the spanwise force distribution across the wing for each of a plurality of different flight conditions, much less disclose how to do this, much less a configuration control system for accomplishing this.

As Applicant has already pointed out in the previously-filed Amendment A, there is no question that the Applicant did not invent the general concept of control surfaces located along the trailing edge of an aircraft wing, nor the general concept of independently controlling the positions of these control surfaces as different flight conditions are encountered by the aircraft. Applicant is not attempting to claim this subject matter. Rather, what the Applicant has invented and is claiming is a method and system that selectively reconfigures these control surfaces to a plurality of predetermined positions that optimize the spanwise force distribution across the wing for each of a plurality of different flight conditions.

In other words, the optimum positions of the control surfaces for each of the plurality of different flight conditions are PREDETERMINED, and thus, as a particular flight condition is encountered, these control surfaces can be reconfigured into their predetermined positions that result in optimum spanwise force distribution across the wing for that particular flight condition. Ashkenas does not even remotely suggest the desirability of doing this, much less provide an enabling disclosure of how to do this. Quite simply put, Ashkenas is not even remotely relevant to a consideration of the patentability of the pending/finally-rejected Claims 1-20 of the present

application.

It should also be pointed out that the Examiner has not even addressed any of the additional limitations recited in the various dependent claims of the present application. For example, Claim 2 recites that “the control surface reconfiguration system also minimizes the moment [acting on the wing] for at least one of the different flight conditions.” In addition to the fact that Ashkenas does not even disclose a “control surface reconfiguration system” at all, Ashkenas certainly does not even remotely suggest that such a system should also minimize the moment acting on the wing. Claim 3 recites the further limitation that “the control surface reconfiguration system minimize the moment for structurally crucial flight conditions”, and Claim 4 recites the further limitation that “the control surface reconfiguration system also trims the wing.” Clearly neither of these additional limitations recited in Claims 3 and 4 can be found anywhere in Ashkenas. In this connection, the Examiner has a duty to specify where the prior art reference relied upon teaches what the Examiner claims that it teaches. The Examiner has utterly failed to specify where Ashkenas teaches any of the above-delineated claim limitations set forth in Claims 2-4.

Yet further limitations are recited in the remaining dependent claims that the Examiner has also failed to address. For example, Claim 5 recites the additional limitation that “the control surface reconfiguration system functions to maximize the lift-to-drag ratio of the wing during the cruise flight condition”; Claim 6 recites the additional limitation that “the control surface reconfiguration system functions to maximize the spanwise lifting force without causing stall to occur at any of the chord lines when the wing is in the high lift at low speed flight condition”; Claim 7 recites the additional limitation that “the control surface reconfiguration system functions to achieve the required lifting force during the pitch maneuver flight condition”; and, Claim 8 recites the additional limitation that “the control surface reconfiguration system functions to shift the spanwise force distribution towards the longitudinal axis without reducing

lifting force, during the pitch maneuver flight condition". Again, the Examiner has a duty to specify where the prior art reference relied upon teaches what the Examiner claims that it teaches. The Examiner has utterly failed to specify where Ashkenas teaches any of the above-delineated claim limitations set forth in Claims 5-8.

Based on the above and foregoing, Applicant respectfully submits that Claims 1-20 are clearly patentable over the art of record, and accordingly, Applicant respectfully requests withdrawal of the outstanding prior art rejection of Claims 1-20 under 35 U.S.C. § 102(b) over Ashkeans.

Consequently, Applicant respectfully submits that this application is in final condition for allowance. However, if it is deemed that there remain any additional issues to be resolved, the Examiner is encouraged to call the Applicant's undersigned representative prior to taking any further formal action in this case.

Respectfully submitted,



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